



FORCE HEALTH

PROTECTION AND READINESS

Volume 4, Issue 1 ■ 2009

Tracking the Influenza Virus

Electronic Health Surveillance

Burning Trash Pits

What You Need to Know

International Data Sharing Agreement

*Preparing Service Members
for Deployment*



The Magazine of Force Health Protection and Readiness
2009 ■ Volume 4 Issue 1

**Acting Deputy Assistant Secretary
of Defense for Force Health Protection
and Readiness**

Col. Donald L. Noah

**Director of Strategic Communication for
the Military Health System**

Michael E. Kilpatrick, M.D.

Editor

Rob Anastasio

Art Director

Del Moran

Graphic Designer

Jaci Kubik

FHP&R Strategic Communications Team

Monica Valdiviez-Wiley

Bill Yamanaka

Derek White

Richard Searles

Terri Lukach

Peter Graves

Matt Puschel

FHP&R is published quarterly by the
FHP&R Communications Office.

Print and visual submissions of general interest
to active duty, reserve component members,
veterans and families are invited. Please send
articles with name, phone number, e-mail,
mailing address and comments to:

**Force Health Protection
and Readiness Magazine**

5113 Leesburg Pike, Suite 901,
Falls Church, Virginia 22041

Phone: (703) 578-8419 • Fax: (703) 824-4229

E-mail: FHPWebmaster@tma.osd.mil

The editor reserves the right to edit all
submissions for length, readability and
conformance with DoD style and policy.

AUTHORIZATION:

FHP&R is an authorized publication for past
and present members of the Department
of Defense. Contents of FHP&R are not
necessarily the official views of, or endorsed by,
the U.S. Government or the Department
of Defense.

IN THIS ISSUE

- 1** From The Desk Of Col. Donald L. Noah, Acting Deputy Assistant Secretary of Defense for Force Health Protection and Readiness
- 2** DCoE Outreach Center Provides Needed Assistance for Psychological Health
- 3** DCoE and VA Co-Host Suicide Prevention Conference
- 4** The Gold That Flows Within: How the Armed Services Blood Program Collects and Protects Its Most Precious Commodity
- 6** Burning Trash Pits: What You Need to Know
- 8** Allied Nations Collaborate for the International Data Sharing Agreement
- 10** The Enemy Unseen: Tracking the Smallest Killer: Influenza
- 12** Hardy Families: A Force Multiplier
- 14** Combat Exposure Raises PTSD, Smoking, Alcohol Abuse Risks
- 16** Cell Phones Aid in Global Health and Medical Care
- 18** Research Means Readiness: The USCENCOM Joint Research Review Process
- 20** Service Members Gain Faster Access to Health Care Benefits
- 21** Resources

FROM THE DESK OF

Col. Donald L. Noah



**The hard work
that is ongoing at
FHP&R continues
to pave the way
to a more healthy
and fit force.**

Welcome to another issue of *Force Health Protection and Readiness* magazine. This issue offers plenty of good information for our Service members, families, and healthcare providers. The hard work that is ongoing at FHP&R continues to pave the way to a more healthy and fit force. We strongly believe that the research and new initiatives being led by our subject matter experts in our several capability areas will continue to provide our Service member's the resources they need and deserve. This issue explores three subject areas that we focus our time and energy on: healthcare, research, and education and training. A few of the new initiatives that FHP&R is spotlighting includes findings from the Millennium Cohort study as well as the environmental and occupational health risks that burning trash pits present to deployed Service members.

There is always exciting work happening at FHP&R, including the evolution of the international data sharing agreement. FHP&R is participating in a coalition with the allied nations of the United Kingdom, Canada, and Australia to increase sharing and visibility of occupational and environmental health risks and issues. Often times, Service members are deployed to an area of the world they may know little about. This Agreement will help prepare our Service members so that they can be ready for the unforeseen problems that may await them in deployment areas.

It is important that all Service members and their families are aware of the latest health-related information and advances in health research and new work that FHP&R is doing. We strive to provide the latest information in military health measures and we hope you consider the Force Health Protection and Readiness office a key resource for you and your family. If you have any questions, comments, subscription requests or story ideas, please write to us at FHPwebmaster@tma.osd.mil.

Col. Donald L. Noah

Acting Deputy Assistant Secretary of Defense
for Force Health Protection and Readiness

DCoE OUTREACH CENTER PROVIDES NEEDED ASSISTANCE FOR PSYCHOLOGICAL HEALTH

By: Bill Yamanaka, FHP&R Staff Writer

The United States military forces are engaged in conflicts today around the globe, most prominently to support Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). In April 2008, the Rand Corporation released a report suggesting that of the 1.6 million U.S. Service members who had deployed in support of operations in Iraq and Afghanistan, approximately 300,000 of these Service members reported symptoms that met the criteria of post-traumatic stress disorder (PTSD) or major depression. The report also suggested that approximately 320,000 may have experienced a traumatic brain injury (TBI) during deployment. Only about half of those with a probable psychological disorder and/or TBI sought treatment. The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) addresses many of the concerns about PTSD; moreover, DCoE is committed to addressing the wide spectrum of psychological health and TBI.

On Jan. 12, 2009, the DCoE Outreach Center commenced operations, establishing an authoritative source of information and resources on psychological health issues for veterans, Service members, and their families. This center provides around-the-clock, toll-free access to information with a primary focus on PTSD and TBI.

“We’re providing 24/7 support to assist callers with questions regarding psychological health and traumatic brain injury,” said Army Brig. Gen.

Loree K. Sutton, M.D., director of DCoE. “Getting the best possible information and tools, hassle-free, will empower and strengthen warriors and their families to successfully manage what can be confusing and disturbing circumstances.” Sutton explained, “If we need to investigate a question, we’ll do the legwork and quickly reconnect with callers. We welcome feedback on how we can better meet the needs of those we are so privileged to serve.”

For many, the stigma (or perceived biases), associated with psychological problems pose a significant barrier to care. The Rand study further estimates that in addition to the billions of dollars in healthcare costs associated with these needs, there is an even greater economic toll on society. For example, we see lost productivity, reduced quality of life, domestic violence and family distress when psychological health needs are not adequately met.

The DCoE Outreach Center is staffed by behavioral health consultants and nurses, most with master’s degrees, who are committed to offering tools, information, and resources of relevance and value. In addition to answering questions, staffers refer callers to contact centers in other parts of DoD, other federal agencies, and outside organizations when appropriate. The center is accessible by phone (1-866-966-1020) or by email. More than a hotline, future plans for the DCoE Outreach Center include Web resources, chat capability, and social networking tools.

In addition to health information and tools that can assist with PTSD concerns, the center can offer assistance navigating the system of care, facilitating linkages to care, benefits information, how to offer support, and where to obtain the right resources at the right place and time. The center also assists healthcare providers by providing them with tools they need to better assist those with PTSD. It can assist caregivers, professionals in support roles, and military leaders who have inquiries about PTSD, who seek further resources, or who can benefit from support of their own.

The center serves members, leaders and healthcare providers of the Army, Navy, Air Force, Marines, Coast Guard, National Guard, and Reserve, along with veterans of all the Services. The families of Service members and of veterans are also served by the new center. It connects these people with the resources they need.

The DCoE Outreach Center is the most recent development in the growth of DCoE and its network orchestration. DCoE, part of the DoD military health system, leads a collaborative effort to maximize opportunities for Service members and their families to thrive through active promotion of resilience, recovery, and reintegration.

Want More?

www.dcoe.health.mil

Resources@DCoEOutreach.org

DCOE AND VA CO-HOST SUICIDE PREVENTION CONFERENCE

By: Bill Yamanaka, FHP&R Staff Writer

The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) and the Department of Veterans Affairs (VA) co-hosted a suicide prevention conference Jan. 12-15 in San Antonio, TX. “Building Community Connections: Suicide Prevention in the 21st Century,” brought together psychological health experts, non-profit and community leaders, families who have lost loved ones due to suicide, mental health clinicians and other providers from around the nation. They shared research, best practices, innovative treatments and personal experiences to increase knowledge about ways to prevent suicide.

The keynote speaker was Army Maj. Gen. Mark Graham, commanding general at Fort Carson, CO, who encouraged Service members facing psychological health issues to get needed help. One of Graham’s sons committed suicide while serving as an Army Reserve Officer Training Corps (ROTC) cadet and another son was killed by a roadside bomb while serving in the U.S. Army in Iraq.

Eric Hipple, a former Detroit Lions professional football player, spoke about the impact of his 15-year old son’s suicide in 2000. Hipple works to educate people about the dangers of depression.

There was also a presentation at the conference on the Army’s Battlemind program, which trains soldiers to deal with deployment-related psychological health issues before, during and after



Maj. Gen. Mark Graham, who lost a son to suicide, speaks to a crowd of mental health specialists, social workers and family members during the Suicide Prevention Conference in San Antonio.

deployments. Key components of Battlemind include self-confidence, taking calculated risks, handling future challenges, mental toughness, overcoming obstacles or setbacks, and maintaining positive thoughts during times of adversity and challenge.

In addition, the conference featured a demonstration and overview of “Beyond the Front,” the new virtual reality suicide prevention training tool from the Army. The issue of suicide and suicide prevention is extremely complicated and can only be addressed by bringing together the Services, VA, medical providers and line leaders. It will take all of this to drive true cultural change to reduce suicide rates.

DCoE addresses the wide spectrum of psychological health which includes post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). DCoE is part of the DoD military health system and, along with the VA and other agencies and the services, leads a collaborative effort for Service members and their families to attain resilience, recovery, and reintegration.

Want More?

www.battlemind.army.mil

www.soldiersmind.com

THE GOLD THAT FLOWS WITHIN

HOW THE ARMED SERVICES BLOOD PROGRAM COLLECTS AND PROTECTS ITS MOST PRECIOUS COMMODITY

By: Peter Graves, FHP&R Staff Writer

It takes thousands of tons of commodities, equipment, and material, and hundreds of thousands of individuals to make a successful fighting force during a time of war. It also takes what may be the most precious and perishable commodity – blood. This is where the Armed Services Blood Program (ASBP) takes the lead. Over the last year, the ASBP has collected approximately 170,000 units of whole blood and platelets, nearly double the amount collected at the start of the Iraq War. It's a small feat compared to the millions of units collected by civilian organizations, but when one considers the remote reaches of the world ASBP's blood products must reach quickly, and at the correct temperature, one begins to understand the tremendous task at hand.

"We're not talking about moving blood next door," says Col. Francisco J. Rentas, ASBP Director. "We have to move blood collected from stateside to theater quickly, ensuring the temperature of the product remains at a constant state. It is a daunting task. We do the best we can within the circumstances we face."

The professionalism and dedication of the ASBP to its mission has ensured United States military personnel and their families receive the blood they need, when they need it.

At the epicenter of ASBP's collection efforts are 23 Blood Donation Centers (BDCs) at military installations across the United States and around the world. These centers comprise the principal



U.S. Navy Lt. Cmdr. Roberto Sanchez donates blood to the Armed Services Blood Program (ASBP) Nov. 6, 2008, at Seabee Plaza at Naval Support Activity Norfolk, Va. (Photo by Mass Communication Specialist 2nd Class Xander Gamble/Released)

collection points for blood products which reach our forces both within the United States and overseas. However, the BDCs are not exclusive. According to Lt. Col. Michael J. Lopatka, Director of the Army Blood Program, ASBP routinely works in concert with local blood agencies to collect on its behalf. "In some cases, we divide the items collected based on need."

Col. Rentas agrees. "If there is a location where there is no BDC, we often partner with or invite civilian collection agencies onto a military facility, such as West Point, and the ASBP receives a portion

of the blood products," he said. Many BDCs also conduct mobile blood drives in government facilities across America to offer citizens who cannot easily access a BDC the chance to donate.

What truly separates the ASBP from most civilian collection agencies is its mission. Most civilian collection agencies are run as businesses where blood and blood products are sold to hospitals, clinics, and other organizations at a price. The ASBP is federally funded and ensures the delivery of its products solely to its central customer – uniformed Service members and their families. Aside from efficiently collecting, processing, storing, and distributing blood and blood products, the ASBP also owns and operates its own transfusion services, a rarity among blood collection agencies.

While the ASBP may be a small organization compared to many blood collection agencies around the world, its rigorous donor screening and blood testing programs are as stringent and safety conscious as its larger compatriots, in full compliance with U.S. Food and Drug Administration (FDA) guidelines, AABB (formerly American Association of Blood Banks) standards, and DoD policies.

No Room for Fool's Gold

Individuals who wish to donate blood or platelets to the ASBP will first have to clear a series of hurdles. This is not designed to deter blood giving, but rather to protect the individual making the donation and the Service member.



A Service member takes time to organize blood bags. Photo by Maja Friejl.

If you wish to donate to the ASBP, you'll first need to undergo a thorough screening program to ensure it is safe for you to give blood. For example, you must be at least 17 years old and weigh no less than 110 pounds. An extensive questionnaire will also be furnished, and the answers will ensure all necessary requirements are met.

If you are a Service member who has served in Afghanistan you cannot donate for one year from the date your tour concluded. Similar restrictions apply for persons who have either lived or visited certain countries for a designated period of time. This is to ensure blood, which may have been exposed to certain pathogens known to exist in a geographic region, can be excluded.

In addition, a recent medical procedure, illness, or medical condition may lead to a deferral. Since ASBP guidelines are consistent with FDA regulations, if you are healthy and meet all requirements,

you should be able to donate without issue.

How You Can Help

ASBP Blood Donation Centers (BDC) are located throughout the United States at installations such as Fort Benning, Georgia; Wright-Patterson Air Force Base, Ohio; the Naval Hospital at Camp Lejeune, North Carolina; and the Walter Reed Army Medical Center in Washington, DC. Recruiters for each BDC are on hand daily to ensure Service personnel and the general public are fully aware of blood collection efforts. At facilities where BDC's are located, it is not unusual for new Service recruits to be fully briefed on their location and the importance of donating blood.

For anyone who wishes to donate directly, visit our Web site to learn the location of the BDC nearest you. You may schedule your appointment online at the same address. If you do not live close to a BDC, ASBP personnel urge

you to take the time to give at your local civilian collection agency.

"Even if eligible individuals do not live within driving distance of a BDC, we urge them to seek out their local civilian blood collection agency and give as much as they can, when they can," Lt. Col. Lopatka said. "Citizens can visit the ASBP website to learn of blood drives which may be scheduled within the vicinity of their hometown."

The gold that flows within is indeed the most precious of all commodities. And the best part is, we all have the power to tap it. Please donate today.

Want More?

For more information, please visit www.militaryblood.dod.mil

For more information regarding BDC locations and to schedule a donation, visit www.militaryblood.dod.mil/Donors/where_to_give.aspx

For more information on donating restrictions and testing, visit www.militaryblood.dod.mil/Donors/can_i_donate.aspx

BURNING TRASH PITS

WHAT YOU NEED TO KNOW

By: Rob Anastasio, FHP&R Staff Writer

During overseas deployments, burn pits are frequently used to dispose of the huge amounts of solid wastes generated at contingency operating bases. In some cases, burn pits are used because other options are not available. There are some locations where burn pits will continue to be the only choice available for the disposal of solid waste. The military is monitoring burn pit operations closely throughout Iraq and Afghanistan to ensure that they are operated in a manner that does not present a long-term health risk for deployed personnel.

In September 2006, the United States Army Center for Health Promotion and Preventive Medicine (USACHPPM), in collaboration with the U.S. Air Force School of Aerospace Medicine (USAFSAM), completed a health risk assessment on the burn pit at Joint Base Balad (JBB) in Iraq. JBB was selected for this special study because it has the largest burn pit in Iraq and because personnel assigned there had frequently expressed concerns about the smoke. The purpose of the risk assessment was to identify any long-term health risks that may result from the smoke. It was conducted by assuming maximum exposures to the personnel assigned to the base. For example, even though not realistic, assumptions were made that

all assigned personnel were exposed to highest levels of contaminants detected for 24 hours a day, 7 days a week, for up to a year.

Over 160 air samples were taken and analyzed for over 4000 individual parameters, including dioxins, which are a particularly hazardous chemical sometimes found in smoke. All of the air monitoring results were compared to military exposure guidelines, which are even stricter than US Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) health regulations. The completed health risk assessment indicated that it was very unlikely that the smoke from the burn pit would result in any long-term health risks to personnel at JBB. This monitoring effort was part of the broader, ongoing theater occupational and environmental surveillance program, which continues today to ensure our deployed personnel are protected from occupational and environmental health hazards. Over 16,000 air, water, and soil samples have been taken and analyzed throughout the theater, including many locations where burn pits are in operation.

Following the completion of the JBB Health Risk Assessment, the Defense Health Board, a Federal Advisory

Committee to the Secretary of Defense, was asked to review the risk assessment. This Board of esteemed medical experts, including university professors and renowned scientists in the fields of epidemiology, preventive medicine, and toxicology, determined that the risk assessment provided an accurate assessment of airborne exposure levels for deployed Service members, and that no dioxin-associated health risks and no elevated cancer rates are anticipated among exposed personnel. They also confirmed that all toxic substances that were detected were within acceptable health standards.

Some Service members have expressed concerns that burn pit smoke may be responsible for serious health problems they are experiencing. Some are also concerned that burn pits are used improperly to dispose of items that release toxic materials into the air. Early in Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF), it is probable that some materials were burned which should have been disposed of by alternative means. Ideally these items would have been disposed of in other ways but at the time there were few, if any, alternatives available. In order for these materials to have resulted in illnesses, their byproducts would have had to been breathed at



U.S. Air Force Senior Airman Frances Gavalis, 332nd Expeditionary Logistics Readiness Squadron equipment manager, tosses unserviceable uniform items into a burn pit at Balad Air Base, Iraq, on March 10, 2008. DoD photo by Senior Airman Julianne Showalter, U.S. Air Force.

quite high levels over prolonged periods, which, based on the amounts of these materials that may have been burned, is unlikely. The burning of these types of materials was halted when other more acceptable means of disposal became available, such as solid waste, hazardous material (HAZMAT) and medical waste incinerators.

Some Service members at JBB and elsewhere who had contact with this type of smoke may have experienced relatively mild and temporary conditions such as irritated eyes and nasal passages, or a cough. For the vast majority of individuals, these types of symptoms are similar to those experienced after breathing any type of smoke. Firefighters, rescue personnel, and others having contact with smoke will inevitably report similar symptoms. The breathing of high concentrations of smoke over long periods of time or breathing very dense smoke for shorter periods, which would be uncommon at our bases, could cause more prolonged coughing, shortness of breath, and

even chest tightness. For those with pre-existing medical conditions such as asthma or other chronic lung diseases (most of these people were likely not deployed), more severe health effects could be encountered due to an aggravation of their condition.

Any personnel who remain concerned about any possible health effects that may be associated with the smoke, or due to any other possible exposures they may have encountered, should promptly consult with healthcare providers at their medical treatment facilities. Likewise, veterans should seek medical evaluation from the Department of Veterans Affairs or from their private healthcare providers.

Beginning in 2007, the purchase of large, industrial-sized waste incinerators began. These incinerators provide a much cleaner and healthier alternative to the burn pits. Their size and price tag of approximately \$1.5 million each affects how many can be purchased and operated in theater. There are currently

17 solid waste incinerators (another 22 under construction), 2 HAZMAT waste incinerators and 24 medical waste incinerators operational in Iraq. While these incinerators have proven effective at the locations where they have been installed (there are now solid waste incinerators are now operating at JBB), the military has implemented other waste reduction strategies at many bases to include recycling, the use of landfills, and relocation of burn pits away from life support areas so they can be safely operated without danger to the operators from insurgents.

While the JBB Health Risk Assessment, as validated by the Defense Health Board, identified no significant long-term health risks from the smoke generated at the largest trash pit in Iraq, the Military Services' preventive medicine personnel continue to closely monitor the air, water, and soil at JBB and throughout the theater to ensure the protection of our most valued resource – our personnel.

ALLIED NATIONS COLLABORATE FOR THE INTERNATIONAL DATA SHARING AGREEMENT

By: Rob Anastasio, FHP&R Staff Writer

The Occupational and Environmental Health Surveillance (OEHS) International Data Sharing Agreement is an initiative under the Chemical Biological Radiological (CBR) Memorandum of Understanding (MOU) that facilitates the sharing of deployment-related OEHS data among the United States, United Kingdom, Canada, and Australia. This initiative commenced in 2005, initially including the United States Department of Defense (Health Affairs), United Kingdom Defence Medical Services Department, and the Canadian Forces Health Services Group Headquarters. It was not until August of 2006 that Australia became the fourth nation to join the alliance as the newest signatory, under authority from the Australia Defence Health Services Division.

The OEHS Agreement was created to allay several problems experienced during Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) military operations. Oftentimes during deployment missions U.S. Service members will work closely with coalition forces from allied nations. However, there has been limited visibility and communication among allied countries on a variety of occupational and environmental health hazards that present themselves during deployment. To remedy this situation, the four participating countries determined that the best way to maximize and preserve the health of Service members and reduce duplication of reporting efforts would be to form a union aimed at sharing information related to force health protection activities.



U.S. Navy Adm. Mike Mullen, Chairman of the Joint Chiefs of Staff, meets Australian Rear Adm. Raydon Gates in Canberra, Australia.

Occupational and Environmental Health scientists say that the primary goal of the OEHS Agreement is to increase the ability to protect deployed Service members and reduce duplication of effort among the U.S. and our allies in supplying health surveillance information to Service members both in theater and out of theater. The participating organizations drafted a tactical plan to serve as a guide through the multi-tiered phases of the operation. The OEHS Sub Group (SG) is working to maintain an integrated data management system that will help identify and communicate different occupational and environmental health risks.

The OEHS Agreement follows a defined plan of action to include specific, quantifiable goals and a multi-phased approach. Phase 1, which was kicked off in December 2006, consisted of ad hoc OEHS sharing among the participating countries. This included baseline assessments which provide raw data on air, water, and soil measurements. It also included routine OEHS reports that were being conducted in these countries, to include pesticide application records and portable water tests, as well as the data sharing of any Chemical, Biological, Radiological (CBR) incident reports and all reportable medical events. This initial phase was most important in laying the



groundwork and creating a foundation of information for the OEHS International Data Sharing Capability Subgroup (OEHS SG) of the Medical Countermeasures Coordinating Team (MCCT) to work with.

Phase 2 of the plan included the creation of a repository to store and manage the data. Started in February 2008, this second step built upon the first in a way that allows allies the accessibility and visibility of over 24,000 related documents. Participating countries are able to upload, search and download relevant OEHS data for specific areas of interest. The information is stored on a system called the Deployment Occupational and Environmental Health Surveillance (DOEHS) Data Portal which is maintained by United States Center for Health Promotion and Preventive Medicine (USACHPPM). Dr. Ian Gardner from the Australian Defence Centre for Occupational Health says “our OEHS Working Group provides a fantastic framework for exchange of almost any sort of (non-classified) health/occupational health/environmental data.”

The third phase, which is currently underway, includes the cataloguing of diseases and injury history with our allied nations. This will help our Service members with the preparations and training that is involved in deploying to these countries. This data sharing system allows the U.S. military, as well as our allies, to be more cognizant of the restrictions and threats in a variety of deployment locations around the globe.

The fourth phase, which will likely be emerging in the next 2 years, includes sharing environmental and occupational health information through an integrated data management system. This database will house information collected in deployed environments and will be archived for future analyses.

Cmdr. David Carpenter of the Canadian Forces Health Services Group says that the data sharing agreement “goes beyond Iraq and Afghanistan. Oftentimes our (Canadian) troops are co-located with U.S. forces in theater; some recent examples of this would be in Naples (Italy) and Kosovo.” Cmdr. Carpenter praised the work that has already been done by the OEHS working group, stressing the fact that this agreement between allied nations legitimizes a precedent that has been set. Australia’s Dr. Ian Gardner shares the same sentiment saying “from an Australian perspective, access to the information that we can now access via the MOU has potentially saved us millions of dollars in what would otherwise be duplicated effort. We are very grateful to our American big brother for such generous sharing.”

The OEHS working group has made significant strides in its short-lived existence. One accomplishment that is possibly the most noteworthy has been the sharing among allied nations of specialized analysis methods and calibration curves to enhance the capability to detect chemical warfare agents during operations in deployed and non-deployed environments. This

technology can also be used to provide better analysis of industrial chemicals and exposures. This was a major step in the right direction for the consortium, lending credence to the overall goals of the program. Cmdr. Carpenter says that the OEHS international data sharing agreement “allows us to validate the work we’ve done by comparing the data that has been collected; but it goes beyond the data that is put into the DOEHS portal. It is strengthening the relationships between our countries. We’ve been allies since 1812, and it’s amazing to see that we are now working together to share and retain this information.”

All the players agree that the OEHS WG is significantly helping in identifying occupational and environmental health issues in deployment areas, as well as helping prepare military forces to go into combat with a heightened understanding of the environment that they will be in. “For the future, one possibility would be to consider whether New Zealand could join the overarching CBR MOU. They are not currently members -- but are long time members of the TTCP (The Technical Cooperation Program),” Dr. Gardner said. TTCP is an international organization that collaborates in defense scientific and technical information exchange, program harmonization and alignment, and shared research activities for the United States, United Kingdom, New Zealand, Australia, and Canada. “There’s enormous overlap between these two international programs.”

THE ENEMY UNSEEN

TRACKING THE SMALLEST KILLER: INFLUENZA

By: Peter Graves, FHP&R Staff Writer

There is an enemy that is unseen by the naked eye. It is an enemy that knows no borders or political differences. It doesn't use guns, bombs, or tanks to incapacitate its victims. It kills equally and in great numbers. It kills as many Americans annually as were killed in the entire Korean War, more than ten times as many as were lost during the September 11th attacks. Chances are, a variant of this unseen killer has invaded you at some point in your life. It is influenza, a viral disease characterized by a series of common symptoms including fever (usually high), chills, sore throat, dry cough, muscle aches, headache, and general discomfort.

Many Americans are unaware that this disease comes in many variants and changes constantly. There are two principal types of influenza virus: Types A and B. Both contain many different strains, only a few of which are capable of infecting human beings. The seasonal flu virus is constantly mutating, necessitating a new flu vaccine every year. Because this tiny killer is adept at changing its form and lethality, researchers and scientists are on constant watch for changes in the seasonal flu virus but also for new, more potent strains. Many scientists

believe conditions may be ripe for the next pandemic flu to emerge. Influenza surveillance efforts are especially important to the U.S. Military.

During the 1918 influenza pandemic, deaths in the military were twice those of the civilian population. Because the U.S. military has a global footprint, its influenza surveillance provides important information used to determine the composition of the annual flu vaccine for the Northern Hemisphere. In addition to seasonal influenza, Department of Defense (DoD) surveillance activities are on the front line for identifying potential viruses that might cause the next flu pandemic.

What is "Pandemic" Flu?

An influenza pandemic occurs when a new influenza virus appears and begins to spread easily from person to person. When this type of flu virus emerges, it can cause widespread illness and death across the globe. One of the first recorded influenza pandemics began in Africa and traveled across Europe in 1510, killing millions. Other, better known, pandemics include the Asiatic Flu outbreak of 1889-1890, and the infamous Spanish Flu of 1918-1919, which infected as much as five percent of the entire human population, killing

some 50 million people (including 675,000 Americans) in six months.

Since 2003, the emergence of a new strain of Type A Influenza (subtype H5N1), popularly known as Avian Flu or Bird Flu, has sparked fears among many in the medical community, fearing that it could mutate into "Pandemic Flu" and spread across the globe. To date, the bird flu has killed millions of birds and infected slightly more than 400 people with a human fatality rate of more than 60 percent. If this flu becomes the next pandemic, the results could be an outbreak more catastrophic than the 1918 Spanish Flu.

On Constant Guard: The DoD Worldwide Influenza Surveillance Network

Although Avian Flu has received the lion's share of media coverage, the fact is that any new flu strain has the potential to cause a deadly pandemic. The men and women of the organizations which comprise the DoD Worldwide Influenza Surveillance Network are committed to providing the earliest detection to ensure the highest chances of combating an emerging pandemic.

The first portion of the Network is the DoD Worldwide Laboratory-

based Influenza Surveillance Program, established in 1997 by the DoD Global Emerging Infections Surveillance and Response System. Now encompassing all Services, this network originally combined a Navy program and the Air Force Influenza Surveillance Program. It includes the U.S. Air Force School of Aerospace Medicine (USAFSAM) and the Naval Health Research Center (NHRC), and is comprised of more than 200 contributing sites located in countries across the globe. Samples are received from these sites and evaluated.

Extended resources include DoD overseas medical research facilities, such as the Naval Medical Research Units in Cairo, Egypt (NAMRU-3) and Jakarta, Indonesia (NAMRU-2), the Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand, the U.S. Naval Medical Research Center – Detachment (NMRC-D) in Lima, Peru, the United States Army Medical Research Unit – Kenya (USAMRU-K), the US Army Center for Health Promotion and Preventative Medicine-West (CHPPM-W) and the most recent addition, the U.S. Army Center for Health Promotion and Preventative Medicine-South (CHPPM-S). Combined, the program provides a unique global snapshot of respiratory disease data

obtained from DoD beneficiaries within the Armed Forces as well as foreign nationals.

The second portion of the Network tracks influenza using a syndromic system of surveillance. Known as ESSENCE (Electronic Surveillance System for Early Notification of Community-based Epidemics), this system helps identify both outbreaks of natural disease as well as bio-terrorism attacks. ESSENCE captures data from all permanent military outpatient treatment facilities that treat active duty personnel, retirees and family members, providing a worldwide snapshot of disease activity. When patients are seen at a health care facility, their encounter is coded according to an ICD-9 code. An ICD-9 code refers to the International Classification of Diseases, 9th Edition. Specific symptoms are tracked using these codes.

If medical facilities report similar ICD-9 codes associated with influenza-like illnesses among a number of patients in a given geographical area, a flu outbreak may be emerging. Data that is obtained through the lab-based systems is presented to the U.S. Food and Drug Administration's Vaccine and Related Biological Products

Advisory Committee. Each year, the Committee uses the data to determine the composition of the flu vaccine for the following year. Additionally, DoD is one of the largest contributors of laboratory information used to make vaccine formula determination. Data is shared with the Centers for Disease Control and Prevention (CDC). CDC also monitors syndromic data and incorporates DoD data into broader national surveillance efforts.

The DoD Worldwide Influenza Surveillance Program utilizes the resources, expertise and diligence of dozens of military, national and international health organizations to provide accurate and timely information on seasonal influenza activity and to provide the earliest warning of an impending influenza pandemic

The emergence of a new influenza pandemic is a very real possibility. But thanks to the efforts of thousands of trained, dedicated professionals across the globe, DoD will be ready.



HARDY FAMILIES

A FORCE MULTIPLIER



By: Maj. Gen. Patrick D. Sculley, (USA, Ret.)

There is general agreement among National Guard leaders, members, and their families that the challenges of current military operations are unparalleled in their intensity, scope, and frequency.

Lt. Gen. Clyde A. Vaughn, Director of the Army National Guard, has summarized the situation well: “Never before has our nation called upon the Army National Guard (ARNG) to serve on the front lines of two major operations and simultaneously take the lead in Homeland Security. Healthy deployable soldiers are the backbone of Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) as well as for operations within the boundaries of our great nation. Maintaining force strength and sustaining these critical operations rely heavily on the health and physical fitness of our soldiers.”

Challenges that began with response to natural disasters and terrorism have now been magnified by economic challenges that have cut across all segments of our population. In such an environment, resiliency, the ability to adapt to and recover from stress, is at a premium and a key factor in maintaining the health of Service members.

Stress can occur within the home, workplace, and operational setting and at every step in the 7-stage deployment cycle. Therefore, creating resilience includes leveraging the force multiplier effects of hardy families. Hardiness is reflected by those that find meaningful purpose in their lives, feel that they can



Indiana National Guard Spc. Charles Deas smiles with his 4-month-old daughter Andrea during a ceremony on Stout Field in Indianapolis, Nov. 25, 2008. Deas, assigned to Company A, 113th Support Battalion, spent more than nine months supporting Operation Iraqi Freedom. Indiana National Guard photo by Spc. William E. Henry.

influence surroundings and events, and feel that they can grow from positive and negative life experiences. Research indicates that there may be a genetic component to resilience, but resilience is reflected in behavior and thus responds to learning and growth. That we can grow more resilient is fortunate indeed.

The D-C-S (Demand-Control-Support) Stress Model of resilience provided by Karasek and Theorell was designed for the work setting; however, the nature of military service provides little distinction between the “work” of military service and the day-to-day activities that enable that service. Therefore, the model is broadly applicable for Guard members and their families. Certainly, most military families can relate to times when

the D-C-S model accurately predicted strain in their lives. However, attention to the elements of D-C-S provides a means to become more resilient. The basics of this model are as follows:

Demand -- Strain from stress is greatest when demands are high.

Control -- Control over events is low.

Support -- Social support is weak.



Although mission demands are non-negotiable there are many other demands that are self-imposed. In the construct developed by Steven Covey in “First Things First,” the mission would be listed as ‘urgent and important’, however he also points out that we need to create time for those things that are ‘important but not urgent’ (e.g., recreation, physical fitness, education, and service) by managing the attention we give to the unimportant things, whether we perceive them to be urgent or not. In the category of urgent/unimportant are interruptions; in the category of not urgent/unimportant are trivia and busy work. Each of us can reduce our self-imposed demands by reducing the interruptions, busy work, and trivia that can fill our time. In so doing, we can create more time for important but not urgent activities.



The second element of the D-C-S model is control. We can learn to become more resilient by becoming knowledgeable of the many tools now available to help cope with everyday stressors. Greater control of events can occur when one knows where to turn for help. Leader, Service member and family support resources are plentiful. Convenient around-the-clock access to online tools and links can be found through the ARNG Soldier/Family Support Services Division (ARNG S/FSSD), National Guard Family Program (NGB FP), Military OneSource, After Deployment, and the ARNG Decade of Health (ARNG DOH) web sites. These sites offer information and guidance that can assist users in gaining a measure

of control over the stressors of home, work, or community.

The last element, the “S”, of the D-C-S model is social support. The various campaigns listed above can provide a virtual support network through their online offerings. Soldier-to-soldier and family-to-family articles located on the “Decade of Health” web site show how others demonstrate and experience resiliency. As important as these offerings are, perhaps the best way to gain social support is in giving support. Each of us has gifts that can touch and support others. Seek out opportunities to serve other military families and your community, creating greater resilience in yourself.

Want More?

Hardy Family Resources:

ARNG Soldier/Family Support Services Division,
www.ngb.army.mil

National Guard Family Program, www.guardfamilies.org

Military OneSource, www.militaryonesource.com

After Deployment, www.afterdeployment.org

ARNG Decade of Health, www.decadeofhealth.com

NATIONAL SUICIDE PREVENTION LIFELINE
1-800-273-TALK (8255)

COMBAT EXPOSURE RAISES PTSD, SMOKING, ALCOHOL ABUSE RISKS

By: Matt Pueschel, FHP&R Staff Writer

The latest research results from a large randomized study on the long-term health effects of thousands of Service members show that while deployed Service members generally are very healthy, there are increased risks for smoking, heavy drinking, and post traumatic stress disorder (PTSD) symptoms among subgroups exposed to combat during deployment. The new information was derived from the Millennium Cohort Study, which began in the summer of 2001 and is conducted at the Department of Defense Center for Deployment Health Research, Naval Health Research Center in San Diego. The study follows the health effects of military service in over 150,000 male and female active duty and Reserve/Guard members over more than two decades.

The latest results are focused on the study's first panel, which includes more than half of the research participants, and examines a follow-up period shortly after participants' deployments compared with their baseline pre-deployment health measures. "It's an exciting time," said Tyler C. Smith, MS, PhD, the Cohort study's principal investigator. "We are able to investigate many health outcomes and their association with deployment."

For example, in a paper published in the February 2008 issue of the *British Medical Journal*, the Millennium Cohort Study Team reported that self-reported PTSD symptoms or diagnoses were about five times higher in those deployed to Iraq or Afghanistan who reported combat exposures. Exposures

to combat were based on affirmative responses to questions about witnessing death, trauma, injuries, prisoners of war, or refugees.

Dr. Smith called the findings "somewhat surprising" in that the post-combat PTSD relationship was fairly consistent across all Services. "The overall new-onset percentage was between 3 and 9 percent across the different Services. The symptoms went up to 10 percent in special populations, including those who reported combat exposures," he said. "Combat exposures appear to be driving not only new-onset symptoms, but persistent symptoms. This was the first paper to investigate the association prospectively in a population-based setting (and it further) allows for comparison to a non-deployed group."

The Cohort's next series of papers will examine how the study participants are faring within 3-6 years after deployment. Dr. Smith said this third data point should reveal if the participants' health measures return to normal pre-deployment levels. It should be particularly helpful in determining how PTSD symptoms might change among Service members deployed to Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) since PTSD symptoms among Vietnam veterans often did not present themselves until 10 to 15 years after returning home. "We're hoping they'd get to care earlier these days," said Col. Tim Wells, USAF, an epidemiologist and co-investigator on the Millennium Cohort Study. Although Dr. Smith acknowledged that there is

still stigma about seeking mental health care, he said "commanders are aware of it and trying to get people in for help."

Another Cohort paper that appeared in *Epidemiology* in May 2008 showed that both male and female study participants who deployed to recent combat operations in Iraq or Afghanistan and had been victims of a previous assault appeared to have a more than two-fold increased vulnerability to new-onset PTSD symptoms rather than having a built-in resilience against them. These results ran somewhat counter to the hope that those with previous traumatic experiences had built up a 'survivor's strength' that might help them better deal with combat exposures. "If we can drill down on certain subgroups with greater risk, perhaps additional pre-deployment training may be of help to these individuals," Dr. Smith said, citing exercises such as Battlemind, an Army Behavioral Health training initiative that seeks to build self-confidence and mental toughness, that could be utilized.

Another Cohort paper that came out in the December 2008 issue of the *American Journal of Preventive Medicine* showed that military deployments to Iraq or Afghanistan—especially prolonged ones, multiple deployments or those with combat exposures—also lead Service members to start smoking or previous smokers to resume the habit. Overall, smoking increased 57 percent among deployed Service members. "A major part of the increase was among those who previously smoked," Dr. Smith said. "Ones who never had smoked



U.S. Army Capt. Frank Rodriguez prepares to move his soldiers forward during a joint operation with U.S. and Iraqi soldiers in Rusafa in eastern Baghdad, Iraq, Feb. 28, 2009. The soldiers are searching for weapons caches and targeted insurgents. Rodriguez is commander of the 82nd Airborne Division's 5th Squadron, 73rd Cavalry Regiment, 3rd Brigade Combat Team. U.S. Army photo by Staff Sgt. James Selesnick.

were at risk, too, but not as high.” The boredom aspect of sitting around and waiting during long deployments could be another factor that leads to smoking, Dr. Smith said, adding that while sometimes Service members may attempt to quit toward the end of their deployment before they go home to their families, smoking levels did not actually fall even after six months of being back from deployment.

Alcohol abuse is another risk as Service members may turn to it as a means to cope with traumatic battlefield experiences. In a paper that appeared in the Aug. 13, 2008 *Journal of the American Medical Association*, the Cohort study team found that both Reserve and National Guard members and younger active duty Service members who reported being exposed to combat during deployments are at increased risk of heavy weekly drinking, binge drinking and alcohol-related problems. “The most important finding was the (increased risk among) National Guard and Reserve,” Dr. Smith said. “In previous work, we’ve

only been able to focus on active duty, so this is a significant bit of information for providers to recognize. Our citizen soldiers, the Reserves and Guard, may need focused training to prepare for combat situations. While there is an increase with alcohol use related to multiple deployments, the length of deployment is important, too. When deployment lengths increased to 15 months, we observed mental health symptoms increase.”

Col. Wells said there also may be differences in social support after the groups return to the states. While Reserve and Guard members go back to their civilian lives, active duty members might have more resources available to them within the military system. “At least we’ve identified the risk,” he said. Dr. Smith added that it seems consistent across the Services. “It suggests that combat exposures are really driving a lot of these findings, not necessarily deployment itself,” he said. “The concern is that Reserve and National Guard members may lack resources

when they go back to their families and are out of the visibility of DoD.”

Dr. Smith said DoD got behind the Millennium Cohort Study during peace time, so having a prolonged study that actually began before the Sept. 11 attacks is crucial. The Study Team is continuing to investigate other possible associations, such as Service members with lower functional health and certain occupations that may be at an increased risk for mental health illnesses. They will also examine a 10,000 person cohort looking at stress and mental health issues of Service members’ families.

Meanwhile, Military Health System leaders work on risk reduction strategies. “Everybody is still trying to learn the best interventions for smoking and alcohol abuse,” Dr. Smith said. “The bad part is that they are starting negative behavior that will impact their health. Our job is to try to mitigate that as much as possible.”

CELL PHONES AID IN GLOBAL HEALTH AND MEDICAL CARE

By: Matt Pueschel, FHP&R Staff Writer

As part of an increased emphasis on global health care outreach efforts, the Military Health System (MHS) is taking a strong look at leveraging the growing use of cell phones in the third world to improve public health through the use of SMS messaging.

There are currently four Department of Defense-funded mobile health, or mHealth, projects that are underway, and several more being discussed. Some are aimed at health promotion for U.S. Service members returning from deployment, while others are reaching out to foreign military populations.

Assistant Secretary of Defense for Health Affairs, Dr. S. Ward Casscells, has a vision of exploring the use of cell phones as innovative, cheap and efficient tools for public health. As part of this vision the MHS convened a day-long Mobile Health Summit last December that brought together the combatant command surgeons and experts from multiple federal agencies, Non-government organizations (NGOs), and the World Health Organization (WHO). “Over half the world (or about 4 billion people) own a cell phone and only 400 million own a computer, so it’s only a matter of time before everyone uses a cell phone for all their computing needs,” said Col. (Dr.) Ron Poropatich, deputy director of the Telemedicine and Advanced Technology Research Center, U.S. Army Medical Research and Materiel Command, Fort Detrick, Md.

Dr. Poropatich called the growing use

of cell phones (it is estimated there are now 1.8 billion mobile phones in the third world and a million coming online daily) and the tremendous health needs in some developing countries a “perfect storm” to utilize the inexpensive technology in medical care. Cell phones are even used in some rural areas that have no electricity, fixed lines or running water.

mHealth can be used for such applications as clinical consultation, education, research, biosurveillance and disease management.

Dr. Poropatich said mHealth can be used for such applications as clinical consultation, education, research, biosurveillance and disease management. DoD projects include a year-long research protocol being conducted by the Walter Reed Army Medical Center’s diabetes institute, which is utilizing Internet-enabled cell phones to pull up

15-30-second video clips that provide educational content on exercise, blood glucose monitoring and diet. All 170 diabetics enrolled in the study received the phones, but only half were sent the daily video clips. The first three months of study showed that the subjects in the intervention group viewed the daily reminders about half the time, but those who did had reduced hemoglobin A1C blood sugar levels and improved glycemic control. “There is another nine months of study, but the preliminary data are favorable,” said Dr. Poropatich.

Another cell phone project is being carried out at several community-based warrior transition units (CBWTUs) which is targeting members with traumatic brain injury (TBI) or suspected TBI. The first phase of the project will send out text messages to the members’ own cell phones and will include educational announcements, sleep hygiene measures, medication and appointment reminders, and helpful hints tailored to the unique problems they may be encountering. Subsequent phases of the program include a formalized research study that will examine clinical and technical issues, reaching out across the Army and eventually the Navy, Air Force and Department of Veteran Affairs.

International mHealth efforts include a project in Peru by DoD’s Global Emerging Infections System (DoD-GEIS) in conjunction with the U.S. Naval Medical Research Center in Lima and the Peruvian military. It has been fully functional for several months and utilizes cell phones for biosurveillance



detection and sending out alerts about suspected emerging infections.

DoD's office of Health Affairs has also invested funds in Africa to leverage an HIV/AIDS Prevention Program in Tanzania which sends text messages about HIV prevention and education to Tanzanian military medics stationed in remote areas. U.S. Africa Command Surgeon Col. Schuyler Geller said there is "significant potential" for cell phones in health. "Teaching people about exercise, sending reminders to take their medicine, (conducting disease) surveillance and alerting in regional response" are just some of the possibilities, he said.

Among the challenges with mHealth are the several languages that will require translation, and illiteracy rates that will have to be overcome through the use of audio clips or images. "We have to be careful not to encroach on the State Department and USAID," Dr. Poropatich advised. "Our job is to complement them, not take over. But if we do (U.S.) military to (foreign) military projects, the host nation military members have family members that could benefit too. We need to work with USAID and the (host country) Ministry of Health to give them the server and they can coordinate with the phone company. We rely on local efforts, but in Iraq and Afghanistan we're improving the communications infrastructure."

Dr. Poropatich said that in the future the use of mobile phones could potentially be expanded to areas such as maternal and

child health care; clinical consultations where pictures of a rash, for example, could be exchanged between providers to reach a diagnosis; biosurveillance research; and medical logistics in which information from the field is uploaded about medication stocks so supply chain personnel know when they need to be

resupplied. In the future, he envisions a doctor, for instance, attaching a colposcope to a cell phone to take pictures of a patient's cervix and sending them to a specialist to determine if there are any early signs of cancer. Other distant technologies could include an adapter to upload slides on new disease treatments.

But as new mHealth technologies are developed, another important issue will be cost. "The problem is it becomes very expensive to use proprietary software," Dr. Poropatich advised. "We're

beginning to dialogue with organizations to develop open source software. We're making efforts to pursue it."

The potential extreme health impact of a cell phone can be traced to a British Broadcasting Channel report last December of a British doctor saving the life of a teenage boy who had a badly infected and gangrenous arm wound in the Democratic Republic of the Congo. The report said the doctor performed a successful forequarter amputation on the boy in October after receiving step by step instructions by text message from an expert colleague in England.

However, for now it is too early to tell what real effect cell phones will have on health.



Dr. Poropatich hopes the diabetes and TBI studies will illustrate that more clearly. "We hope that over time there will be a body of science developed that will allow us to make strong statements, but right now it is anecdotal," he said.

RESEARCH MEANS READINESS:

THE USCENTCOM JOINT RESEARCH REVIEW PROCESS

By: Peter Graves, FHP&R Staff Writer

Throughout a Service member's career, he or she is likely bound to have many questions about why things in the military are done the way they are. They may ask why their helmet is designed the way it is, or why their boots are designed to fit a certain way. They may inquire into why a medical procedure in a front line clinic is conducted differently than perhaps a trauma unit would do so in an average American hospital.

Nearly every piece of equipment, every medical procedure, and every process a Service member is likely to experience during service was designed or implemented as a result of human research. Combat conditions especially give rise to new opportunities for military planners and researchers to develop and test improved medical methods and standards that will benefit warriors in current and future conflicts.

"Nearly all advances in military medicine have come about as a result of war," says Lt. Col. Rick McBride, a U.S. Air Force officer with the Biomedical Science Corps attached to U.S. Central Command (USCENTCOM) at MacDill Air Force Base, Florida. "Such conditions attract researchers in an effort to discover new and improved methods for keeping our warriors safe and healthy."

"Human research helps us to refine and improve methods for caring for our soldiers," said Col. W. Bryan Gamble, MD, Command Surgeon for USCENTCOM. "From discovering more reliable body armor to finding

new methods for treating traumatic brain injury, human research provides new techniques to help our warriors cope with new environments."

For the better part of the last two decades, the geographic region encompassing USCENTCOM (covering most of the Middle East including Afghanistan and Iraq) has been a hotbed of U.S. military activity. With what is likely to be a long term, highly-concentrated, U.S. military presence in dangerous and constantly changing conditions, it is vital for controlled and cooperative human research to be conducted within USCENTCOM's Area of Responsibility (AOR). This has prompted USCENTCOM to initiate a new Joint Research Review process.

Until now, each branch of the Armed Forces operating within USCENTCOM jurisdiction had been conducting field research completely consistent with Federal law and Department of Defense (DoD) regulations, but without any true synchronization or coordination of efforts. Due to the high number of human research breakthroughs which have resulted from ongoing combat conditions in the USCENTCOM AOR, the Service within its AOR have agreed to merge their research efforts and bring them under the jurisdiction of a single USCENTCOM Institutional Review Board (IRB).

An IRB is a vital and necessary element within the human research protection process. Any institution, including the military, engaged in federally funded or

sponsored research involving human subjects must have an Assurance.

An Assurance documents the institution's commitment to comply with all applicable laws, regulations, policies, and ethical guidelines; describes the institution's program for ensuring such compliance; and identifies the IRB which will govern the process.

Composed of at least five members, the IRB may approve, disapprove or require modification to proposed research. Under the Joint Research Review Process, research activities that fall under USCENTCOM control will be conducted under a single Assurance.

To many Americans, the idea of human research carries with it negative connotations. However, Federal law, DoD regulations, and other Federal regulations place extreme oversight and protections upon any research conducted which involves humans. Research conducted with human support and participation is designed to not only improve the quality of life for the Service member, but also to develop new and consistent medical procedures for certain injuries sustained in certain conditions.

Research undertaken by USCENTCOM or any other entity with an Assurance must be conducted with the full knowledge and informed consent of the subject. In many cases, individuals are simply asked to try a new piece of equipment and then report back its effectiveness. For medical procedures, research consists



Staff Sgt. Thomas J. Brennan, Multi-National Corps - Iraq Surgeons's Cell, Camp Victory, Iraq, applies the Special Operations Forces Tactical Tourniquet to the arm of Sgt. Sherrie M. Knight, MNCI Surgeons's Cell, during a class July 4, 2005 at Camp Victory. (U.S. Army photo by Spc. Jeremy D. Crisp.)

primarily of data collection and analysis. Based on outcomes, procedures can be refined to enable the medic or surgeon to provide more effective treatments in the field.

"Human research helps us to ensure a framework is in place for the next combat command surgeon when the next war arises," said Col. Gamble. "He or she won't have to make it up as they go along. They'll have a set of consistent procedures to follow when treating injuries in certain battlefield conditions."

Human research has already led to significant improvements in medical treatments for Service members within the USCENTCOM AOR. A 2005 study conducted by the U.S. Army Institute of Surgical Research (USAISR) led to the development of a standard combat application tourniquet for use by Service members in the field. Previously, unit-level medical officers could requisition

multiple types of tourniquets, some more effective than others, and all requiring separate training. If a Service member had to apply a tourniquet he or she was unfamiliar with during a combat situation, the risk was high the tourniquet would be improperly placed. With a single standard and universal training, more lives could be saved.

Research in the prevention of hypothermia, for example, led to the development of new policies designed to decrease its risk to Service members operating in the high elevations of Afghanistan and in the winter months in Iraq. The policies directed an inventory of hypothermia preventive and treatment products (such as modified thermal sleeping bags) in combat theater and a summary of training which emphasized treatment and training for medical personnel.

Other research found that by wearing fire resistant gloves in high-risk

operations, even in non-combat related situations such as refuse burning, risk of traumatic hand burn injuries could be greatly reduced.

The benefits reaped from the ability of a combat command to conduct research involving human subjects are immeasurable and have led to life-saving medical procedures and more effective, standardized equipment for Service members in the field. Through the Joint Research Review Process, USCENTCOM will be able to fully and effectively coordinate its research activities - expected to accelerate as years pass - and ensure such research results in a more healthy and effective fighting force.

Want More?

www.centcom.mil

www.mcdill.af.mil

SERVICE MEMBERS GAIN **FASTER ACCESS** TO HEALTH CARE BENEFITS

By: Rob Anastasio, FHP&R Staff Writer



Department of Defense (DoD) and the Department of Veterans Affairs (VA) are collaborating yet again to build upon an existing program that simplifies the disability evaluation process for wounded, injured and ill Service members. The program will benefit Service members greatly with the fact that this program streamlines the processes for Service member disability qualifications and benefits.

The Disability Evaluation System (DES) pilot program helps wounded Service members obtain faster access to TRICARE and other healthcare and VA benefits by developing a single medical examination used by both DoD and VA. One highlighted aspect of the program is that there is a single source disability evaluation done by VA which is also accepted by DoD.

As it stands, a Service member undergoes a thorough physical and psychological evaluation to detect any conditions that may make him or her unfit for duty. This evaluation, in turn, initiates the

medical examination board process. Following separation or retirement from service, the Service member is once again evaluated by the VA for disability and compensation qualifications. The inconsistency and lack of cohesion is solved with the DES pilot program.

The DES pilot program makes these two separate processes more efficient and more transparent for the Service members. The program is unique in that it actually takes the two processes and intertwines them, while maximizing the information gathered from the Service member's evaluation. The program also allows comprehensive Service member benefits and disability information to be readily accessible in regards to entitlements from both agencies at the time of the separation. With the pilot, only this one evaluation is necessary after a member is referred for a Service medical evaluation board.

The pilot program was initiated in November 2007 in the National Capital Region, and is on schedule to expand to

19 additional installations through June 2009. The program was established in response to the President's Commission on Care for America's Returning Wounded Warriors. The goal is to simplify healthcare and treatment for injured Service members and veterans and deliver benefits as quickly as possible.

The pilot program was initially tested at three Military Treatment Facilities in the National Capitol Region – Malcolm Grow Medical Center at Andrews Air Force Base, Md., Walter Reed Army Medical Center in Washington, D.C., and the National Naval Medical Center in Bethesda, Md.

Since the pilot program began, the VA indicates more than 700 Service members have participated. In order to gather and evaluate data from other geographic regions, 19 more installations have been added to the study, including Fort Carson, Colo., Naval Medical Center San Diego, Calif., and Elmendorf Air Force Base, Ala.

